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76

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/972,749	10/08/2001	Charles D. Gollnick	14408US01	5342
7590	12/30/2005		EXAMINER	
CHRISTOPHER C WINSLADE MCANDREWS HELD & MALLOY 500 W MADISON STREET SUITE 3400 CHICAGO, IL 60661			VUONG, QUOC HIEN B	
			ART UNIT	PAPER NUMBER
			2685	
			DATE MAILED: 12/30/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/972,749	GOLLNICK ET AL.
	Examiner	Art Unit
	Quochien B. Vuong	2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 22 September 2005.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

This action is in response to applicant's response filed on 09/22/2005. Claims 1-21 are now pending in the present application. **This action is made final.**

### *Claim Objections*

1. Claims 5-9, and 16-21 are objected to because of the following informalities:  
The phrase "The **invention**" on line 1 of claims 5-9 and 16-21 should be changed to "The **network controller**" and "The **improved apparatus**", respectively.  
Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-4, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg (US 4,850,032) in view of Shimada (US 4,866,667).

Regarding claim 1, Freeburg discloses a data communication system (figure 1) having a plurality of mobile transceiver units (190) communicative with a base transceiver unit (130-132), a network controller (102) intercommunicative between the base transceiver units and one or more host computer (180) for data interchange therebetween (column 2, lines 9-43), having port means and providing selection of one of a plurality of electrical interface standards for communicating using said port means (figure 2, items 502, 504-507) (column 3, lines 11-22). Freeburg does not specifically disclose providing selection of one of a plurality of electrical interface standards for communicating using said port means based upon a user input. However, Shimada discloses providing selection of one of a plurality of electrical interface standards for communicating using port means based upon user input (see abstract; column 4, lines 30-46; column 8, lines 25-38; and column 11, lines 24-35) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the teaching of Shimada to the network controller of Freeburg in order for the user to select the interface depending on the user's need.

As to claim 2, figures 1 and 2 of Freeburg read on the claimed limitation.

As to claim 3, Freeburg discloses the controller communicates with the base transceiver units by an RS232C (figure 2).

As to claim 4, as Freeburg is modified with Shimada for the reasons as set forth above, would read on the claimed limitation of a multiplicity of data communication ports thereon and at least two of the communication ports being software-controllable to select among the plurality of electrical interface standard (Shimada requires that the network controller unit operates with the plurality of electrical interface standard).

As to claim 15, it is rejected for the same reasons as set forth in claim 1 above.

As to claim 19, figures 1-2 of Freeburg read on the claimed limitation.

5. Claims 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Shimada as applied to claim 4 above, and further in view of Fadem (US 5,090,013).

As to claim 5, the above combination of Freeburg and Shimada fails to disclose a serially interconnection over a single twisted pair as claimed. Such a serially interconnection over a single twisted pair, however, is known in the art as described by Fadem (see figures 2A-B; column 4, lines 44-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the above teaching of Fadem to the above combination, in order to have a simple way of interconnecting the base transceiver units.

As to claim 8, Fadem further disclose the interface means being RS485 (column 4, lines 44-57).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Shimada as applied to claim 1 above, and further in view of Gilhousen et al. (US 5,109,390).

As to claim 6, the above combination of Freeburg and Shimada does not disclose at least a portion of the mobile transceiver units are communicative with the base transceiver units by spread spectrum. However, communication between mobile and base transceiver units using spread spectrum means is known in the art as taught by Gilhousen et al. (column 5, lines 46-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the teaching of spread spectrum of Gilhousen et al. to the above combination of Freeburg and Shimada, in order to reduce noise and interference in the data communication system.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Shimada as applied to claim 1 above, and further in view of Ide et al. (US 4,739,288).

As to claim 7, the above combination of Freeburg and Shimada does not disclose at least a portion of the mobile transceiver units are communicative with the base transceiver units by synthesized frequency radio means. However, communication between mobile and base transceiver units using synthesized frequency radio means is known in the art as taught by Ide et al. (column 1, lines 26-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the teaching of synthesized frequency radio means of Ide et al. to the above combination of

Freeburg and Shimada, in order to improve modulation of a data signal for generating a plurality of narrow band signals for communication system.

8. Claims 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Shimada as applied to claims 1 and 15 above, and further in view of Duis (GB 2288249A) and Lubarsky et al. (US 4,841,437).

As to claims 9 and 21, as set forth above, Freeburg and Shimada as a whole does include interface means including RS232. Freeburg and Shimada fail to disclose RS485, RS422, V.35. However, these interface means are well known in the art as taught by Duis (page 6, lines 20-30) (RS485, RS422) and Lubarsky et al. (column 5, lines 38-58) (V.35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the teaching of Duis and Lubarsky et al. to the above combination of Freeburg and Shimada, so that the data communication system can be easily implemented with interface means already existing in the market.

9. Claims 10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Duis (GB 2288249A) and further in view of Shimada.

Regarding claim 10, Freeburg (figure 1) disclose in a data communication system having a multiplicity of mobile portable transceiver units (190) communicative by radio means with base transceiver units (130-132), apparatus for data interchange between the base transceiver unit and a host computer (180) comprising a housing (102) having a multiplicity of communication ports thereon, at least three of the communication ports

selectively controllable to provide interchange using an RS232 electrical interface standard (figure 2, items 502,504-507) (column 3, lines 11-22). Freeburg does not specifically disclose at least three of the communication ports selectively controllable to provide interchange using an RS422 electrical interface standard and based upon a user input. However, the RS422 interface means are well known in the art as taught by Duis (page 6, lines 20-30) (RS485, RS422). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the RS422 interface means of Duis to the apparatus of Freeburg, so that the data communication system can be easily implemented with interface means already existing in the market. The combination of Freeburg and Duis fails to disclose providing selection of one of a plurality of electrical interface standards for communicating using said port means based upon a user input. However, Shimada discloses providing selection of one of a plurality of electrical interface standards for communicating using port means based upon user input (see abstract; column 4, lines 30-46; column 8, lines 25-38; and column 11, lines 24-35) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the teaching of Shimada to the apparatus of Freeburg and Duis in order for the user to select the interface depending on the user's need.

As to claim 12, Duis further disclose RS485 (page 6, lines 20-30).

As to claim 13, figures 1-2 of Freeburg read on the claimed invention (since the claim recite may be more than one host computer interconnected to the data communication system).

As to claim 14, figures 1-2 of Freeburg read on the claimed limitation.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Duis and Shimada and further in view of Lubarsky et al. (US 4,841,437).

As to claim 11, Freeburg, Duis and Shimada as a whole does include interface means including RS232 and RS422 interfaces. Freeburg, Duis, and Shimada fail to disclose V.35 interface. However, V.35 interface means are well known in the art as taught by Lubarsky et al. (column 5, lines 38-58) (V.35). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the teaching of Lubarsky et al. to the above combination of Freeburg, Duis, and Shimada, so that the data communication system can be easily implemented with interface means already existing in the market.

11. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Shimada and further in view of Alvarez, III et al. (US 4,332,026).

As to claim 16, the combination of Freeburg and Shimada fails to disclose the network controller selectively operate with the stationary receiver at one or more communication rates. However, Alvarez, II et al. disclose a network controller having ports means providing interface at a relative low rate and at a relative high data rate (figure 4; column 11, lines 27-61; and abstract). Therefore, it would have been

obvious to one of ordinary skill in the art at the time of the invention to adapt the teaching of more than one communication rates to the above combination of Freeburg and Shimada, in order to provide and support different data rate services.

As to claim 20, Freeburg, Shimada, and Alvarez, III et al. fail to expressly disclose the data processor also operating with multiple data rates. However, since the network controller of Freeburg, Shimada and Alvarez, III et al. operates with more than one data rate, those skilled in the art would have appreciated that the data processor should also operate with multiple data rates in order to be compatible with the network controller. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the above combination as claimed, so that the data processor and network controller can properly communicate with each other.

12. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Shimada and further in view of Sasuta et al. (US 4,698,805).

As to claim 17, the combination of Freeburg and Shimada fails to disclose a diagnostic device as claimed. However, Sasuta et al. (figure 7) disclose a diagnostic device connect to one of the communication ports for the purpose testing or monitoring the system operation (column 11, lines 31-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the teaching of diagnostic device of Sasuta to the above combination of Freeburg and Shimada, in order to testing or monitoring the system operation.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Freeburg in view of Shimada and further in view of Saito et al. (US 5,019,966).

As to claim 18, the combination of Freeburg and Shimada fails to disclose a second data processor associated with the network controller and intercommunicative therewith. However, controller with dual processors is well known in the art as taught by Saito (figure 1, column 4, line 53 – column 5, line 66). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the second processor to the controller of the above combination of Freeburg and Shimada, so that more data can be communicated within the system.

### ***Response to Arguments***

14. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quochien B Vuong whose telephone number is (571) 272-7902. The examiner can normally be reached on M-F 9:30-18:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quochien B. Vuong  
Dec. 23, 2005.

  
QUOCHIEN B. VUONG  
PRIMARY EXAMINER